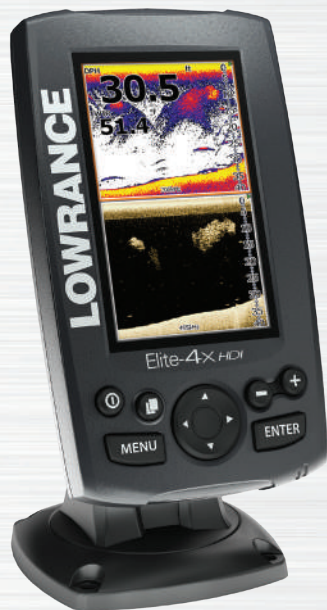


# LOWRANCE®



## Elite-4x HDI

Operation manual

**Copyright © 2014 Navico**

**All rights reserved.**

Lowrance® and Navico® are registered trademarks of Navico.

**Navico may find it necessary to change or end our policies, regulations and special offers at any time. We reserve the right to do so without notice. All features and specifications subject to change without notice.**

For technical specifications,  
certificates and declarations,  
refer to the product web site:



**[www.lowrance.com](http://www.lowrance.com)**







# Table of contents

---

<b>Introduction</b> .....	<b>3</b>	Entering text .....	6
Unit Controls.....	3	Fishing Modes .....	7
<b>Basic Operation</b> .....	<b>4</b>	Cursor.....	8
Setup wizard.....	4	Advanced Mode .....	8
Pages .....	4	Standby mode .....	8
Selecting Pages.....	4	Restore defaults .....	8
Page menus .....	4	<b>Pages</b> .....	<b>9</b>
Accessing the Settings menu .....	5	Sonar Page.....	9
Accessing menu items.....	5	DownScan page .....	9
Working with menus .....	6	Combo pages .....	10
Dialogs.....	6	Overlay Data.....	10

<b>DownScan Operation .....</b>	<b>12</b>	DownScan options.....	22
Trackback .....	12	Sonar Settings.....	23
Ping Speed.....	14	<b>Settings .....</b>	<b>26</b>
DownScan options.....	15	System.....	26
<b>Sonar Operation .....</b>	<b>17</b>	About .....	27
Trackback .....	17	Alarms .....	27
Sensitivity .....	18	<b>Specifications .....</b>	<b>29</b>
Colorline .....	18	<b>Index .....</b>	<b>30</b>
Range.....	19		
Frequency .....	20		
Ping Speed.....	20		
Fish ID .....	21		

# Introduction

Unit Controls	
	<b>LIGHT/POWER:</b> controls backlight level and turns unit on/off
	<b>KEYPAD:</b> controls cursor & selects items on menus
	<b>PAGES:</b> allows you to select a page to view
	<b>MENU:</b> opens settings, context and page menus
	<b>ENTER:</b> finalizes menu selections
	<b>ZOOM KEYS:</b> (+) used to zoom in; (-) used to zoom out

Getting Started	
<b>Turn unit on/off</b>	To turn on/off the unit, press and hold the <b>LIGHT/POWER</b> key for three seconds.
<b>Adjusting the backlight</b>	This unit has 11 backlight levels. Press the <b>LIGHT/POWER</b> key to switch backlight levels.
<b>Muting Audio</b>	Select <i>Audio</i> from the System menu. Select <i>Mute</i> and press <b>ENTER</b> .

## Conventional sonar and DownScan

This unit supports two types of sonar: Conventional and DownScan.

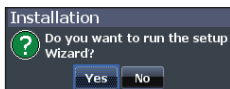
Refer to the “Sonar Operation” section for information about conventional sonar features and settings.

DownScan features and settings are covered in the “DownScan Operation” section.

# Basic Operation

## Setup wizard

The Setup wizard will appear when the unit is turned on for the first time. To choose your own settings, do not run the setup wizard. To restart the Setup wizard, restore defaults.



## Pages

This unit has four pages: DownScan, Sonar, Sonar/Downscan (vertical) and Sonar/Downscan (horizontal).



*Pages dialog*



## Selecting Pages

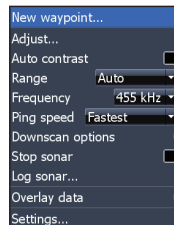
To select a page, press the keypad in the direction of the desired page and press **ENTER**.

## Page menus

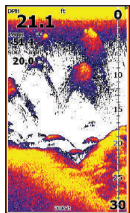
The DownScan and Sonar pages have menus that can only be accessed when those pages are displayed.



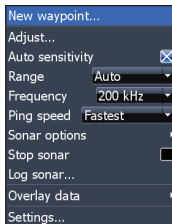
*DownScan page*



*DownScan menu*

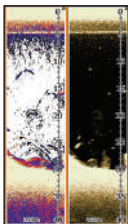


**Sonar page**

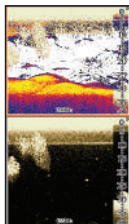


**Sonar menu**

### Combo pages



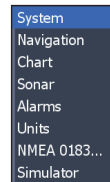
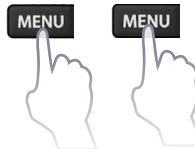
**Two-panel page**



**Horizontal panels**

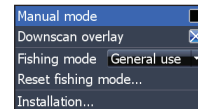
Press the **PAGES** key twice to switch active panels. The page menu for the active page will be displayed when the **MENU** key is pressed.

### Accessing the Settings menu



### Accessing menu items

The keypad and **ENTER** key are used to select menu items and open submenus. Use the keypad to highlight the desired item and press **ENTER**.



## Working with menus

There are several menu types used to make adjustments to options and settings, including scrollbars, on/off features and dropdown menus.

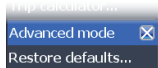
### Scrollbars

Select the scrollbar and press the keypad left (decrease) or right (increase).



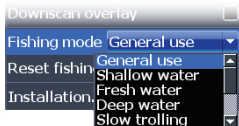
### On/Off features

Select an on/off menu item and press **ENTER** to turn it on/off.



### Dropdown menus

Access the dropdown menu and press the keypad up/down to select the desired item and press **ENTER**.



**NOTE:** Press the **MENU** key to exit menus.

## Dialogs

Dialogs are used for user input or for presenting information to the user. Depending on the type of entry, different methods are used to confirm, cancel or close the dialog.



## Entering text

Some functions, like naming a waypoint, route or trail, will require you to input text.

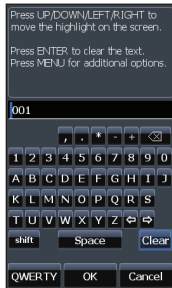
### To input text:

1. Use the keypad to select the desired character and press **ENTER**.
2. Repeat Step 1 for each character.
3. When entry is completed, highlight **OK** and press **ENTER**.



Switches letters  
to uppercase/  
lowercase

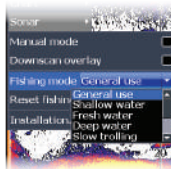
Switches keyboard  
between ALPHA and  
QWERTY layout



## Fishing Modes

### *(Conventional sonar only)*

Fishing modes enhance the performance of your unit by providing preset packages of sonar settings geared to specific fishing conditions.



Fishing Mode Options		
General Use	1000ft or less	Coastal
Shallow Water	60ft or less	Shallow weedy bottoms
Fresh Water	400ft or less	Inland/Near coastal
Deep Water	1000ft or more	Offshore
Slow Trolling	400ft or less	Inland/Coastal
Fast Trolling	400ft or less	Inland/Coastal
Clear Water	400ft or less	Inland/Coastal
Brackish Water	400ft or less	Fresh-Saltwater mix
Ice	400ft or less	Ice fishing

## Cursor

The keypad moves the cursor around the display and allows you to review sonar history.

## Advanced Mode

Enables advanced features and settings.

The following features are enabled when Advanced mode is turned on:

- NMEA 0183 configuration options
- Units (Enables depth and temperature configuration options)

## Standby mode

Lowers power consumption by turning off sonar and the display.

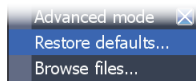
1. Press the **PWR/LIGHT** key to access the Backlight dialog.
2. Select *Standby* and press **ENTER**.
3. Press any key to resume normal operation.



**NOTE:** *Leaving your unit in Standby mode when your boat is not in use will run down your battery.*

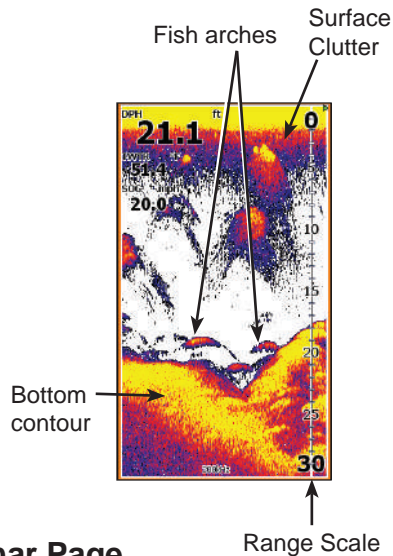
## Restore defaults

Sets unit options and settings to default values.



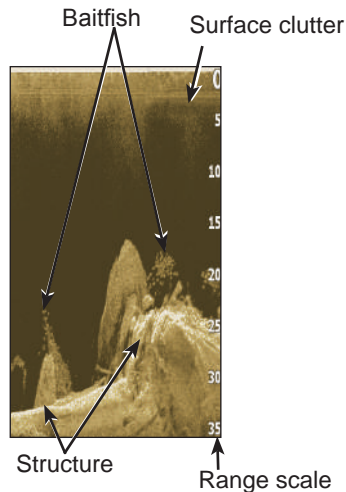
# Pages

---



## Sonar Page

Displays the water column moving from right to left on your unit's screen.

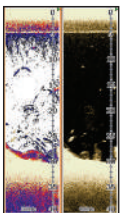


## DownScan page

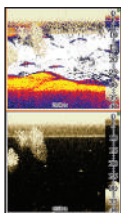
The DownScan page shows the water column moving from right to left. You can overlay DownScan sonar on the conventional sonar page by selecting *DownScan Overlay* on the Sonar settings menu.

## Combo pages

This unit has two pre-configured combo pages.



*Sonar/DownScan*



*Sonar/DownScan  
horizontal*



**NOTE:** Press the **PAGES** key twice to switch active panels. The active panel will have an orange border.

## Customizing combo pages

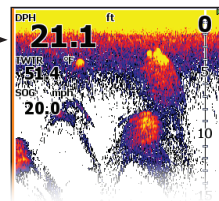
You can control how the pages will be arranged on the screen: vertically (side) or horizontally (over).



## Overlay Data

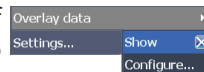
Used to select data shown on the Sonar and Down-Scan pages.

Overlay data →



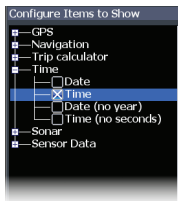
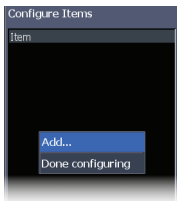
## Show

Enables/disables the display of overlay data, allowing you to remove overlay data from the screen without deleting the current overlay data configuration.



## Configure

Allows you to select/customize overlay data.

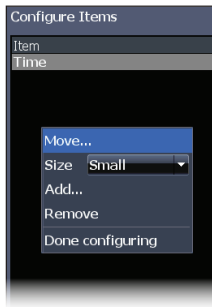


### To add overlay data:

1. From the Sonar or DownScan page, press **MENU**.
2. Select *Overlay data* and press **ENTER**.
3. Select *Configure* and press **ENTER**.
4. Press *Menu* and select *Add*. Press **ENTER**.
5. Select a data category and press **ENTER**.
6. Select the desired data and press **ENTER**.
7. Repeat Steps 5 and 6 to add more data.
8. Press **MENU** and select *Return to Overlays*. Press **ENTER**.
9. Press **MENU**, select *Done Configuring* and press **ENTER**.

## Customizing Overlay Data

You can add/remove data and adjust the size and position of overlay data on the screen.



1. Press **MENU** and select *Overlay data*.
2. Select *Configure* and press **ENTER**.
3. Highlight the desired overlay data and press **MENU**.
4. Select the desired configuration category to make adjustments.

# DownScan Operation

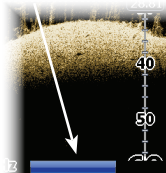
This unit supports two types of sonar: Conventional and DownScan.

The features described in this section are for DownScan sonar. Refer to the “Sonar operation” section for information on conventional sonar features.

## Trackback

You can review your sonar history by pressing the keypad to the left until the screen starts to move in reverse and the sonar history bar appears at the bottom of the screen.

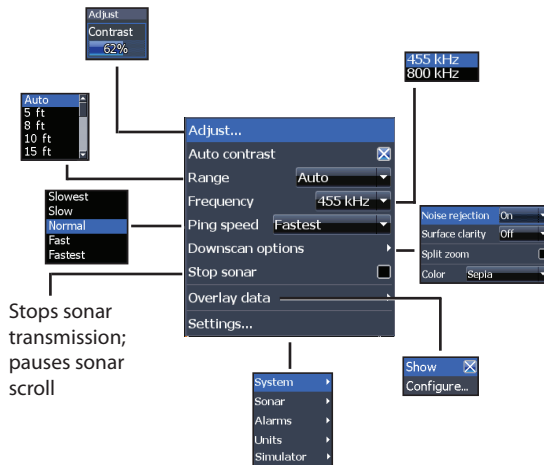
DownScan history bar



Move the sonar history bar all the way to the right to resume normal sonar scrolling, or press **MENU** and select *Exit cursor mode*.

## DownScan menu

Press **MENU** from the DownScan page to view the DownScan menu.



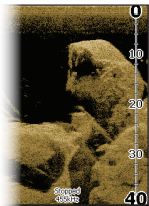
## Adjust

Access the Adjust menu to make adjustments to the contrast level.

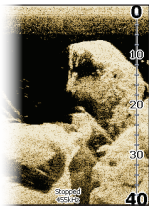


## Contrast

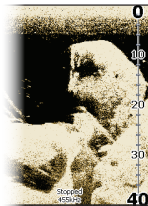
Adjusts the brightness ratio between light and dark areas on the screen, making it easier to distinguish suspended objects from the background.



**Contrast set  
to 40%**



**Contrast set  
to 60%**



**Contrast set  
to 80%**

DownScan units do not have a Sensitivity setting like traditional sonar units. Contrast functions as the sensitivity setting for DownScan units.

## Auto Contrast

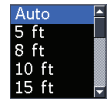
Automatically adjusts contrast settings to a level that works best with current water conditions.



**NOTE:** You can make limited adjustments to the contrast level with Auto Contrast turned on. You will have to turn it off to have access to all contrast levels.

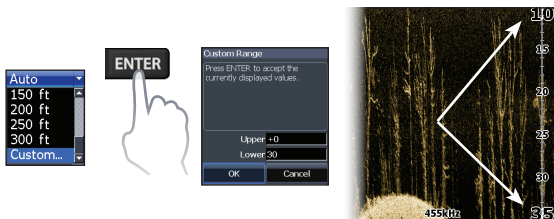
## Range

Range settings display the section of the water column from the water surface to the selected depth range.



## Custom Range — Upper and Lower Limits

Used to select the upper limit and lower limit of a section of the water column. That allows you to view a section of the water column that does not include the water surface.



Upper and lower limits must be at least 5 ft (2m) apart.



**NOTE:** *When using a custom range, you may not receive any digital depth readings, or you may receive incorrect depth information.*

## Frequency

Controls the transducer frequency used by the unit. 800 kHz offers the best resolution, while 455 kHz has greater depth coverage.

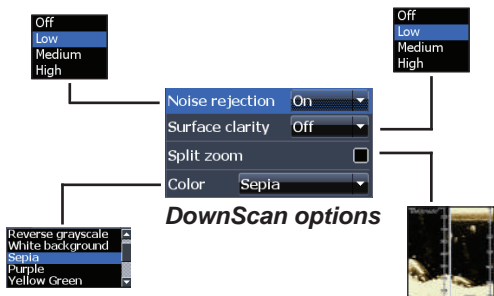
455 kHz  
800 kHz

## Ping Speed

Controls the rate the transducer uses to send sonar waves into the water. Ping speed adjustments can help reduce interference from other transducers.



## DownScan options

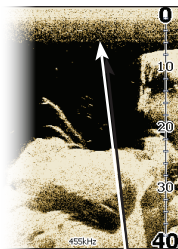


### Noise Rejection

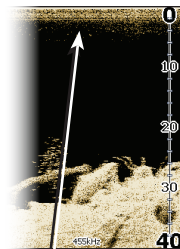
Uses advanced signal processing to monitor the effects noise (boat pumps, water conditions, engine ignition systems, etc.) has on your display, and then filters out undesired signals.

### Surface Clarity

Surface Clarity reduces surface clutter by decreasing the sensitivity of the receiver near the surface.



Surface Clarity set to Low



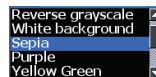
Surface Clarity set to High

### Split Zoom

Changes the display to a split zoom view. You can select a 2X or 4X zoom level. Press the +/- keys to zoom in/ zoom out.

### Color

Allows you to select a color palette best suited to your fishing conditions.



The white background palette works well for suspended targets. Purple is useful for viewing structure detail and determining bottom hardness. Sepia is best for looking at bottom detail.

## Stop Sonar

Stops sonar transmission and pauses the sonar chart, allowing you to get a better look at suspended targets and structure.



**NOTE:** *Sonar history (Trackback) will not be recorded when sonar is stopped.*

## Overlay Data

Allows you to select data to be displayed on top of the Down-Scan page.

Overlay data setup is covered in the “Pages” section.



## Settings

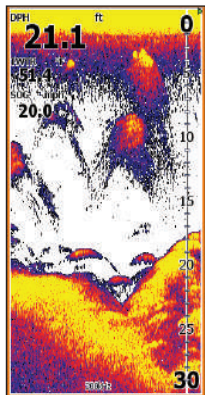
Accesses the Settings menu. Refer to “Sonar Settings” on page 27.

|

# Sonar Operation

---

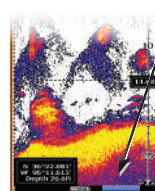
This unit supports two types of sonar: Conventional and DownScan.



The features described in this section are for conventional sonar.

Refer to the “DownScan operation” section for information on DownScan features.

Blue sonar history bar



## Trackback

You can review your recent sonar history by moving the cursor to the left until the screen starts to move in reverse.

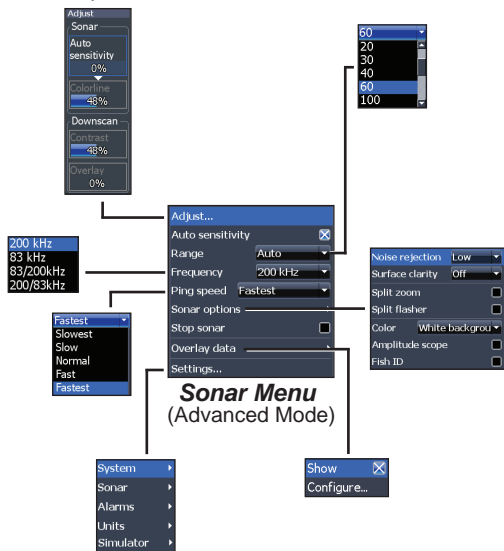
Move the sonar history bar all the way to the right to resume normal sonar scrolling, or press **MENU** and select *Exit cursor mode*.

## Sonar Menu

Press **MENU** from any sonar page to access the Sonar menu.

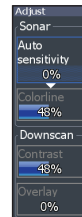


Shown with DownScan overlay enabled



## Adjust

You can make adjustments to Sensitivity and Colorline from the Adjust menu. Contrast and Overlay options will only be active on the Adjust menu with DownScan Overlay enabled.



## Sensitivity

Controls the level of detail shown on the display. Too much detail will clutter the screen. If Sensitivity is set too low, desired echoes may not be displayed.

## Colorline

Separates strong sonar echoes from weak sonar echoes. That makes it easier for you to distinguish fish or structure from the bottom. A hard return will be shown as a wide, bright yellow area, whereas a soft return will be a narrow reddish-blue area.

## Auto Sensitivity

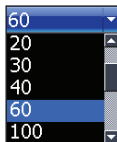
Keeps sensitivity at a level that works well under most conditions, reducing the need for adjustments. Auto Sensitivity is turned on by default.



**NOTE:** You can make changes (+/-40%) to sensitivity with Auto Sensitivity turned on. You will have to turn it off to make significant adjustments.

## Range

Selects the deepest range shown on the display. Range settings display the section of the water column from the water surface to the selected depth range.



If you select too shallow a depth range, the unit will not be able to lock onto the bottom.

## Custom Range — Upper and Lower Limits

Used to select the upper limit and lower limit of a section of the water column. That allows you to view a section of the water column that does not include the water surface. Upper and lower limits must be at least 5 ft (2m) apart.



**Custom range menu**



**NOTE:** When using a custom range, you may not receive any digital depth readings, or you may receive incorrect depth information.

## Frequency

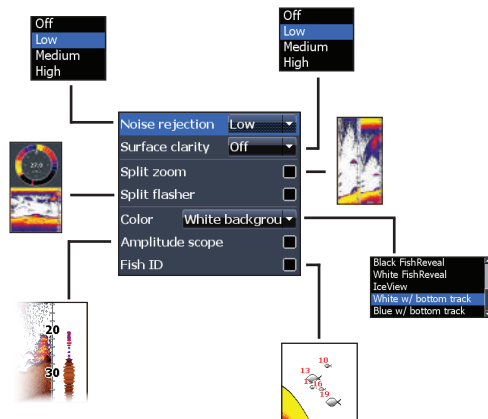
Controls the transducer frequency used by the unit. This unit supports three conventional sonar frequencies: 50kHz, 83kHz and 200kHz.

200 kHz has the highest sensitivity and best target separation in shallow water. 83 kHz offers a wider cone angle for more water coverage. 50 kHz provides the best depth penetration.

## Ping Speed

Controls the rate the transducer uses to send sonar waves into the water. Ping speed adjustments can help reduce interference from other transducers. When using fishing modes, ping speed settings are optimized for the selected fishing conditions, so in most cases, adjustments are not necessary.

## Sonar Options

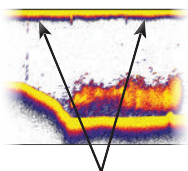


## Noise Rejection

Uses advanced signal processing to monitor the effects noise (boat pumps, water conditions, engine ignition systems, etc.) has on your display, and then filters out undesired signals.

## Surface Clarity

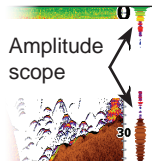
Surface Clarity reduces surface clutter by decreasing the sensitivity of the receiver near the surface.



**Surface Clutter**

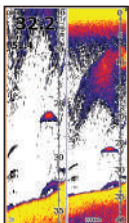
## Amplitude Scope

Displays the amplitude of the most recent echo.

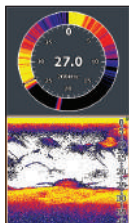


## Split Zoom and Split Flasher

Switches the sonar display from full screen sonar to a split screen view.



**Split Zoom**

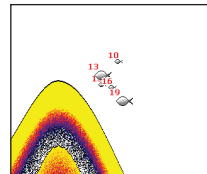


**Split Flasher**

## Fish ID

Displays fish echoes as fish symbols instead of fish arches.

Fish ID is not the most accurate method of fish detection since structure and suspended debris may be shown as a fish symbol on the display.

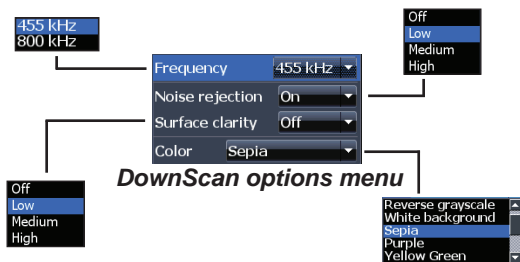


## Color

Allows you to change the look of the display using palettes with varying degrees of color/brightness.

## DownScan options

You can make adjustments to DownScan overlay settings from the sonar page. DownScan options are covered in more detail in the “DownScan Operation” section.



**NOTE:** *The DownScan options menu will only be available when DownScan overlay is enabled.*

## Stop Sonar

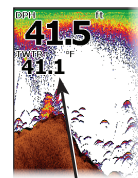
Pauses the unit’s sonar, allowing you to get a closer look at suspended targets. Stop Sonar also can be used to prevent/stop interference between two sonar units running on the boat at the same time.



**NOTE:** *Sonar history will not be recorded when sonar is stopped.*

## Overlay Data

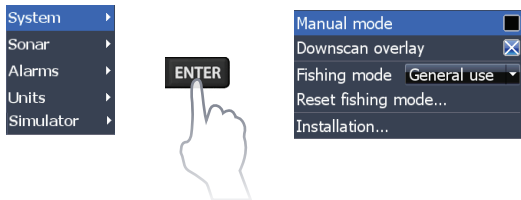
Allows you to select data to be displayed on top of the Sonar page. Overlay data setup is covered in the “Pages” section.



Overlay data



## Sonar Settings

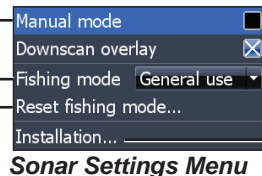
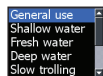


### Conventional settings/DownScan Settings

You can adjust settings for both Conventional sonar and DownScan sonar modes from the Sonar Settings menu.

Only adjustments made to conventional sonar settings will be visible on the sonar page.

Restricts unit's digital depth search capability



Turns on/off DownScan overlay

### Sonar Settings Menu



### Manual Mode

Restricts digital depth capability, so the unit will only send sonar signals to the selected depth range. That allows the display to continue smooth scrolling if the bottom depth is out of transducer range.

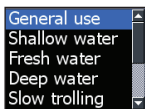


**WARNING:** Manual mode should only be used by advanced sonar users.

When the unit is in manual mode, you may not receive any depth readings, or you may receive incorrect depth information.

## Fishing Mode

Enhances the performance of your unit by providing preset packages of sonar settings geared to specific fishing conditions. For more information about fishing modes, refer to the “Basic Operation” section.



## Reset Fishing Mode

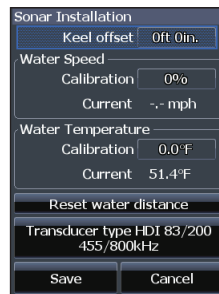
Resets selected fishing mode to default settings. That is useful when you want to clear settings adjustments made while using a fishing mode.

## Installation

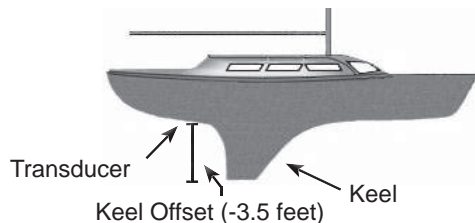
### Keel Offset

All transducers measure water depth from the transducer to the bottom. As a result, water depth readings do not account for the distance from the transducer to the keel or from the transducer to the water surface.

Before setting keel offset, measure the distance from the transducer to the lowest part of the keel. If, for example, the keel is 3.5 feet below the transducer, it will be input as  $-3.5$  feet.



### Installation menu



### ***Water speed calibration***

Calibrates a paddlewheel speed sensor with speed data from a GPS source.

### ***Temperature calibration***

Calibrates data from the transducer temperature sensor with data from a known temperature source to ensure the accuracy of temperature information.

### ***Reset water distance***

Resets the Water Distance value to zero.

### ***Transducer Type***

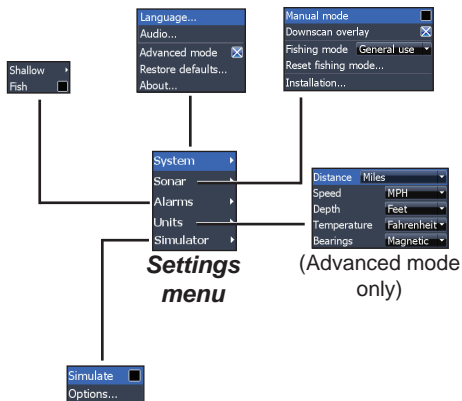
Selects the transducer model attached to your unit. You must select the correct transducer type to get the best sonar performance from your unit.



# Settings

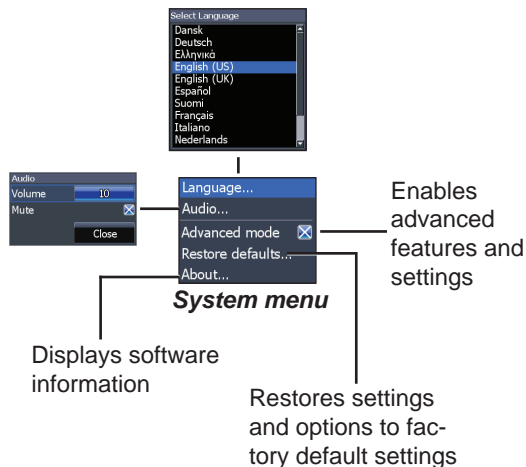
## Settings menu

Accesses installation and configuration settings for your unit.



## System

Adjusts unit settings like language, mute audio and advanced mode.



## Set Language

Selects the language used on menus and text boxes.



## Audio

Adjusts volume and turns on/off unit audio, like key beeps, alarm sounds, etc.

## Advanced Mode

Enables features and settings only available with unit in Advanced Mode.

## Restore Defaults

Switches the unit back to default settings.

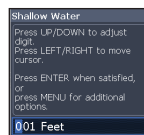
## About

Displays software information about this unit. Before attempting a software update, you can check the version of software your unit is using by accessing the About screen.

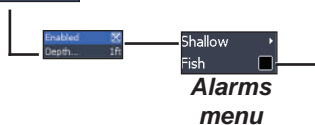
Lowrance periodically updates unit software to add features and improve functionality. To see the latest available software version go to [www.lowrance.com](http://www.lowrance.com).

## Alarms

Enables alarms and selects alarm thresholds.



Sounds alarm when Fish ID symbol appears on display



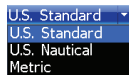
Alarms	
<b>Shallow</b>	sounds alarm when vessel enters water shallower than the selected shallow threshold
<b>Fish</b>	sounds alarm when a fish symbol (Fish ID) appears on the sonar screen

## ***Simulator***

Simulates sonar activity. Simulations can be customized on the Simulator options menu.

## ***Units***

Allows you to select the unit of measure used by the unit. Unit options vary depending on whether the unit is in basic or advanced mode.



***Basic Mode***



***Advanced Mode***

Elite-4x HDI	
General	
<b>Case Size</b>	6.6" H (168 mm) x 3.6" W (96 mm); 7.5" H (189 mm) with bracket
<b>Display</b>	(4.3" diagonal) 16-bit color TFT LCD
<b>Waterproof standard</b>	IPX7
<b>Backlight</b>	LED (11 levels)
Power	
<b>Transmit Power</b>	250W RMS; 30,000 PTP
<b>Power Requirement</b>	12V
<b>Voltage Input</b>	10 to 17V
<b>Current drain</b>	Typical: .75A
<b>Fuse type</b>	3-amp Automotive

Sonar	
<b>Max depth</b>	300ft (91 m) 455/800Khz 750ft (229 m) 83/200kHz 2000ft (610 m) 50/200kHz
<b>Transducer Frequency</b>	455/800kHz and 83/200kHz or 50/200kHz
<b>Max speed</b>	70mph
<b>Transducer</b>	HDI 50/200kHz HDI 83/200kHz 83/200kHz
<b>Transducer cable</b>	20ft (6m)

# Index

---

- A**
  - About 27
  - Adjust menu 18
  - Advanced Mode 8, 27
  - Alarms 27
  - Amplitude Scope 21
  - Audio 27
  - Auto Sensitivity 19
- C**
  - Color 15
  - Colorline 18
  - Contrast 13
  - Custom Range 14, 19
- D**
  - Depth Range 13
  - Dialogs 6
  - DownScan menu 12
  - Dropdown menus 6
- F**
  - Fish alarm 28
  - Fish ID 21
  - Fishing Mode 7
  - Fishing Modes
    - Reset 24
  - Frequency 14, 20
- I**
  - Ice Mode 22
  - Installation menu 24
- K**
  - Keel Offset 24
- L**
  - Language 27
- M**
  - Manual Mode 23
  - Mute Audio 27
- N**
  - NMEA 0183 28
  - Noise Rejection 15, 20
- O**
  - On/Off features 6
  - Overlay Data 10, 16
    - Configure 10
    - Customizing 11
    - Show 10
- P**
  - Page menus 4
  - Page selection 4
  - Ping Speed 20



## R

- Range 13
- Reset Fishing Mode 24
- Reset water distance  
25
- Restore Defaults 27

## S

- Saving Screenshots 27
- Scrollbars 6
- Sensitivity 18
- Set Language 27
- Settings 26
- Settings menu 26
- Setup wizard 4
- Shallow alarm 28

- Simulator 28
- Software Updates 27
- Sonar Installation 24
- Sonar Menu 17
- Sonar Options 20
- Sonar Page 9
- Sonar settings 23
- Split Flasher 21
- Split Zoom 20
- Standby mode 8
- Stop Sonar 16, 22
- Surface Clarity 15, 21
- System menu 26
- System settings 26

## T

- Temp calibration 25

- Text entry 6
- Trackback 12
- Turn unit on/off 3

## U

- Unit Controls 3
- Units 28
- Upper & Lower Limits  
14, 19

## W

- Working with menus 6

## **Contact information**

**Customer Service:**

**1-800-628-4487**

(8:30 a.m. to 5 p.m. Central Standard Time, M-F)

**(Canada)**

**1-855-361-1564**

**canada@navico.com**

(8 a.m. to 5 p.m. Eastern Standard Time, M-F)

## **Ordering Accessories**

<http://store.navico.com/>

## **Visit our website**

[www.lowrance.com](http://www.lowrance.com)

Visit our website:

[www.lowrance.com](http://www.lowrance.com)

